



## Builders Challenge

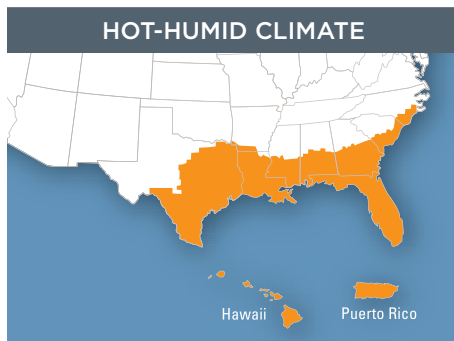
Recognizing Energy Leadership in Homebuilding

## High Performance Builder Spotlight

# LifeStyle Homes

Melbourne, Florida

LifeStyle Homes of Melbourne, Florida, is aiming for affordable net zero-energy homes with help from Building America research partner Florida Solar Energy Center



## BUILDER PROFILE

**Builder:** LifeStyle Homes  
Jake Luhn, CEO, (321) 288-8481  
[www.buildinglifestyle.com](http://www.buildinglifestyle.com)

**Founded:** 1984

**Where:** Melbourne, FL

**Employees:** 20, not including subcontractors

**Zero-Energy Homes:** 1,500 to 2,500 ft<sup>2</sup>

**Price Range for Standard ZEH:** \$255,900 to \$279,900

**Size:** 3-4 bedrooms, 2-3 bathrooms



LifeStyle Homes of central Florida began partnering with Building America in 2008 with the goal of building a zero-energy home (ZEH). The company rapidly progressed from building code-minimum homes to high-performance homes with HERS scores of 60 or less. Now, just two years after setting their goal, LifeStyle has built and sold a true net-zero-energy home. A second is underway, with more to follow.

“It’s the right thing to do, the perfect balance for the consumer and the builder,” said CEO Jake Luhn. “The homeowner reduces their carbon footprint and saves money. We as a builder not only differentiate our product on the market, but as our cofounder Larry Hufford says, we’re leading the way in reducing our country’s dependence on foreign oil.”

With more than 25 years of experience in the building industry, LifeStyle Homes partnered with the Florida Solar Energy Center (FSEC), a member of the Building America Industrialized Housing Project, to achieve energy efficiency.

“The Florida Solar Energy Center is the reason we’ve been able to push this forward,” Luhn said. “We give them the majority of the credit.”

The team devised better building techniques and identified cost-effective high-performance equipment to create the company’s SunSmart<sup>SM</sup> energy package, which includes solar equipment for attic ventilation and water heating, a 14 SEER/HSPF 8.2 heat pump, and ENERGY STAR windows and appliances. To create a tight thermal envelope, ducts are tightly sealed with long-life mastic and fiberglass, and the attic has R-38 insulation and a radiant barrier. Between the drywall and the exterior concrete block are R-7 reflective insulation and double furring strips to create an insulating air gap. Fresh air comes through a whole-house passive ventilation system with damper and filtration. High-capacity kitchen and bath fans vent stale air to the outside.

The SunSmart<sup>SM</sup> homes become net-zero-energy homes with the addition of photovoltaic panels. LifeStyle’s luxury St. Croix model in the Tralee Bay Estates neighborhood of Melbourne has an 8.0-kW photovoltaic system

and a HERS rating of -6. The 2,390-ft<sup>2</sup> home with four bedrooms and three bathrooms sold before it was completed for \$417,000. The PV panels are integrated into the tile roof.

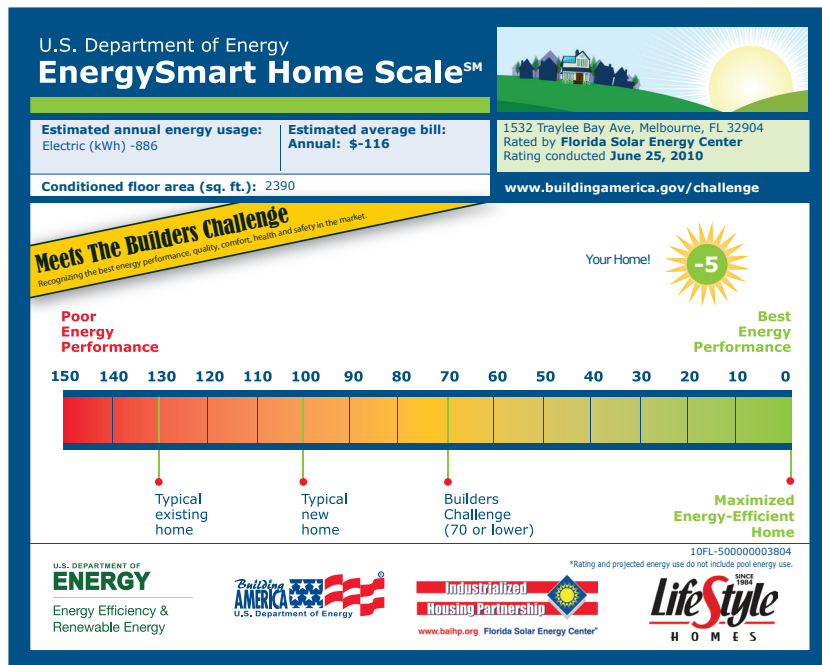
Affordably priced zero-energy homes are LifeStyle's next goal, and construction on the first of them is already under way. The price of these 1,700 to 2,500-ft<sup>2</sup> homes will be just \$255,900 to \$279,900, thanks to "a real team effort" between the builder, FSEC, and the company's suppliers, Luhn said. These homes, all in the Whispering Winds development, will have a standard 5.76-kW PV system that produces more electricity than required when the sun is shining. The surplus will be sold to the utility company to offset the cost of power purchased when the sun isn't shining. Over a year's time, the net cost of power will be zero, or close to zero, depending on a home's size and roof orientation.



Solar photovoltaic roof panels mirror the size of cement roofing tiles for a nearly invisible appearance on LifeStyle's luxury zero-energy home.

## U.S. Department of Energy Builders Challenge

DOE seeks to give every consumer the opportunity to buy a cost-neutral, net-zero energy home anywhere in the U.S. by 2030. Homes that qualify for this Builders Challenge must achieve a 70 or less on the EnergySmart Home Scale (E-Scale) which is based on the Home Energy Rating System (HERS) index ([www.natresnet.org](http://www.natresnet.org)). The E-Scale allows homebuyers to understand—at a glance—how the energy performance of a particular home compares with others.



To learn more about the Builders Challenge and find tools to help market your homes, visit [www.buildingamerica.gov/challenge](http://www.buildingamerica.gov/challenge).

## Key Features

- **HERS Score:** -6
- **Blower Door Test:** 4.36 ACH @ 50 pascals
- **HVAC:** 14 SEER/HSPF8.2 heat pump
- **Air Handler:** In conditioned space
- **Ducts:** Ducts in conditioned space, sealed mastic and fiberglass mesh
- **Water Heating:** Solar-powered water heating system with 80-gallon insulated storage tank and electrical backup system
- **Framing:** Concrete block construction with no penetrations for electrical boxes
- **Roof (standard ZEH):** Asphalt shingle, radiant barrier under roof deck
- **Attic:** R-38 insulation, solar-powered thermostat-controlled ventilation fans
- **Windows:** Low-E double pane ENERGY STAR windows (U=value 0.60, SHGC=0.35)
- **Appliances:** All ENERGY STAR
- **Lighting:** 100% CFLs
- **Solar (standard ZEH):** 5.67-kW rack-mounted photovoltaic panels
- **Energy Use Monitor:** TED<sup>®</sup> computerized real-time monitor

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